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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/329,487	06/10/1999	MITCHEL KRISS	29284/35302	8147

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EXAMINER

NORMAN, MARC E

ART UNIT	PAPER NUMBER
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3744

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/329,487

Applicant(s)

KRISS ET AL.

Examiner

Marc E. Norman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 December 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,9-11,14-16,22-37 and 39-49 is/are rejected.
- 7) ☒ Claim(s) 7,8,12,13,17-21 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments with respect to claims 1-6, 9-11, 13-16, and 22-49 have been considered. Applicant's arguments regarding Ando have been considered, but are not persuasive. Applicant's arguments regarding WISC are moot in view of the new ground(s) of rejection. (The Examiner accepts Applicant's argument that the copyright date of the Confidential Disclosure Agreement at page 1 of WISC does not clearly establish the copyright date of the material on pages 1-9 of WISC. Accordingly, the Examiner has supplied a new secondary reference.)

Regarding the Ando reference, Applicant lists three distinctions between Independent claim 1 and Ando. 1) Demand forecasting such as disclosed in the Ando patent is irrelevant because it deals with future sales. 2) Demand forecasting such as disclosed in the Ando patent does not rely on a supplier of interest because the demand forecasting requires data from plural suppliers. 3) Demand forecasting such as disclosed in the Ando patent does not rely on data from two specific groups of people such as the customers of a supplier of interest and a subset of those customers.

Regarding the first argument, the Examiner submits that the pertinent passage of Ando (column 1, lines 31-46) is not strictly concerned with future sales. In particular, Ando states "the sales amount in all shops is presumed from the sales amount in the sample shop on the basis of the sales amount ratio...." Contrary to Applicant's assertion, this sales determination is concerned with present/past sales as opposed to being strictly directed to future sales.

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Regarding the second argument, the Examiner submits that the sample shop is, in effect, the supplier of interest. The Examiner disagrees with applicants reading that the sample shop is “merely a representation (a sort of average) of the plural shops.” The sample shop is simply one specific shop extracted (i.e., chosen) from a plurality of shops. Accordingly, the forecasting does not require data from plural shops.

Regarding the third argument, the Examiner did not submit that Ando relies on data from the customers of a supplier of interest and a subset of those customers. This limitation is taught by the secondary reference.

Due to the uncertainty regarding the date of the WISC reference, the Examiner has supplied a new secondary reference. Due to these new grounds of rejection, this rejection is made NON-FINAL.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

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4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-6, 9-11, 14-16, 22-36, 39-44, 48, and 49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando in view of Egol.

As per claim 1, Ando discloses a method of estimating purchases (i.e. sales amount) made by customers of a supplier of interest (sample shop) from other suppliers (plural shops), the method comprising:

- collecting sample data regarding purchases (sales) at the supplier of interest (sample shop) and regarding purchases (sales) at other suppliers (plural shops) (see column 1, lines 31-38);
- determining a relationship between the purchases made from the supplier of interest and the purchases made from the other suppliers (column 1, lines 35-37 regarding “the sales amount ratio in the sample shop to the sales amount in all shops...”);
- reading customer data regarding purchases made by the customers from the supplier of interest (column 1, line 35 regarding the sales amount in the sample shop); and
- based upon the customer data and the relationship, estimating the purchases made by the customers from the other suppliers (column 1, line 34 regarding determining the sales amount in all shops).

Ando does not specifically teach the sample data being panelist data from a subset of the customers of the supplier of interest (i.e., the sample shop).

Egol teaches a method of estimating purchases made by customers of a supplier of interest from other suppliers wherein the sample data is panelist data from a subset of the customers of the supplier of interest (see lines 19 and 21-22).

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It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the panelist data gathering step of Egol with the sales estimation method of Ando for the purpose of providing the base data for determining the relationship between the purchases made from the supplier of interest and the purchases made from the other suppliers, since Ando already makes use of such a relationship and since the panelist data of Egol is also directed to providing the base information for analyzing customer purchase patterns from competitors.

As per claims 2-6, the rejections based on official notice set forth in the original office action (paper #4) are carried forward and maintained. In the appeal brief, Applicant argued that these rejections were inappropriate because they were not directed to the specific data (i.e., sales from competitors to customers of the supplier of interest), and further that just because the steps recited are well known activities, it would not necessarily be obvious to apply them to the specific case at hand. The Examiner submits that any issue regarding the specific data has been overcome in view of the new rejection of claim 1 based on Ando and Egol. Further, the Examiner submits that aggregating panelist/customer data according to categories (claim 2); defining purchases in terms of dollars spent (claim 3); unrotated principal factor analysis (claim 5); and predictor variables (claim 6) are all common and well established statistical techniques. Simply applying them to a specific type of data does not render these techniques patentably significant. Applicant has not provided any reason, other than the fact that the current case is a specific application of these well-known techniques, that these techniques are novel in the present context. Regarding claim 4, it is further noted that Ando does teach data including the

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share (i.e., relative sales) from the supplier of interest and from the competition (column 1, lines 36-38).

As per claim 9, the Examiner submits that the claim simply labels the variables F_1 through F_i , without providing any context within the claim as to what the labels F_1 and F_i refer. The examiner reiterates that simply labeling variables is not, in itself, patently significant.

As per claims 10 and 11, Applicant is referred back to the original Office Action, where it was shown that the squaring of predictor variables and products of predictor values are well known (as illustrated by Pyndick). Again, Applicant has not provided any context within the claim as to what F_1 and F_i refer. Further, as discussed above regarding claims 2-3 and 6, simply applying these techniques to a specific type of data does not render these techniques patently significant. Applicant has not provided any reason, other than the fact that the current case is a specific application of these well-known techniques, that these techniques are novel in the present context.

As per claim 14, Ando does teach sales amount (i.e. dollars spent) being an input (i.e., predictor) variable sales amount. The concept of a category is broad and, absent further details, is not in itself patently significant. Applicant has not provided any reason, other than the fact that the current case is a specific application of these well-known techniques, that these techniques are novel in the present context.

As per claim 15, it is noted again that the squaring of predictor variables and products of predictor values are well known (as was illustrated by Pyndick). While the prior art does not specifically teach the predictor variables including the square of the total number of dollars, the Examiner once again asserts that this is also simply a specific application of well known

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technique. Applicant has not provided any reason, other than the fact that the current case is a specific application of these well-known techniques, that these techniques are novel in the present context.

As per claim 16, as discussed in the original Office Action, determining criterion variables is well known and common technique in economic forecasting. Absent any further details regarding the criterion variables, and given the fact that the claim provides no guidance as to how the criterion variables are actually applied, the determining of criterion variables in and of itself does not render the claim patentable over the cited prior art. While the prior art does not specifically teach criterion variables being based on aggregated panelist data or aggregated customer data, the Examiner once again asserts that this is also simply a specific application of well known technique. Applicant has not provided any reason, other than the fact that the current case is a specific application of these well-known techniques, that these techniques are novel in the present context.

As per claim 22, see discussion of similar claim 5, above.

As per claim 23, see discussion of similar claim 6, above.

As per claim 24, see discussion of similar claim 16, above.

As per claims 25 and 26, the Examiner reiterates the argument of the original Office Action that performing a linear regression based on predictor variables and criterion variables is simply a basic and common activity of econometric analysis (as was demonstrated by Pyndick et al.). Regarding the fact that the relationship is used to estimate purchases made by the customer from other suppliers, the motivation for such a calculation has already been discussed above regarding claim 1. Again, simply applying these techniques to a specific type of data does not

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render these techniques patently significant. Applicant has not provided any reason, other than the fact that the current case is a specific application of these well-known techniques, that these techniques are novel in the present context.

As per claim 27, see discussion of similar claim 5, above.

As per claims 28 and 29, see discussion of similar claims 25 and 26, above.

As per claim 30, see discussion of claim 1 above, which includes each of the recited steps of claim 30.

As per claim 31, see discussion of similar claim 2, above.

As per claim 32, see discussion of similar claim 5, above.

As per claim 33, see discussion of similar claim 6, above.

As per claim 34, see discussion of similar claim 25, above.

As per claim 35, the claim is rejected based on the discussion of claim 1 and of claim 25 regarding performing linear regressions.

As per claim 36, see discussion of similar claim 5, above.

As per claims 39, see discussion above of claim 1. It is further noted that the sales ratio disclosed by Ando is a form of linear relationship between purchases between sales/purchases from the supplier of interest (sample store) and the other suppliers (all shops).

As per claims 40-42, the various limitations recited have already been discussed with regard to claim 1.

As per claim 43, see discussion of claim 1, above. Claim 43 simply presents certain limitations of claim 1 in means plus function language.

As per claim 44, see discussion of similar claim 5.

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As per claims 48 and 49, these limitations regarding determining a linear relationship and estimating purchases are discussed above regarding claim 39 and claim 1.

Claims 37 and 45-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando in view of Egol, and further in views of Besser.

As per claims 37 and 45, neither Ando, Egol, nor Applicant's admitted prior art discloses creating a linear equation based on results from the unrotated principal components factor analysis. Besser teaches performing regression analysis (i.e., creating a linear equation) based on unrotated principal component analysis (see page 5, 1st-3rd full paragraphs). Since the claim, as written, provides no indication as to the particulars of the equation, or how it is applied, it would have been obvious to perform regression analysis on the data for the general purpose of determining relationships among variables. Applicant has not provided any reason, other than the fact that the current case is a specific application of these well-known techniques, that these techniques are novel in the present context.

As per claim 46, as discussed with regard to claim 39, the sales ratio disclosed by Ando is a form of linear relationship between purchases between sales/purchases from the supplier of interest (sample store) and the other suppliers (all shops).

As per claim 47, see discussion of claim 1 regarding estimating the purchases by the customers from the other suppliers based upon the purchases from the supplier of interest (sample store) and upon the linear ratio.

Conclusion

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The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ezop teaches the use of surveys to determine what customers buy from competitors (see page 2).


Duncan et al. teaches the use of surveys to determine the percentages customers spend at competing banking institutions (see page 4).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc E. Norman whose telephone number is 703-305-2711. The examiner can normally be reached on Mon.-Fri., 8:00-5:30, with first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Denise Esquivel can be reached on 703-308-2597. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5648.

MN
February 19, 2003


MARC NORMAN
PATENT EXAMINER